Data Sheet (Cat.No.TMPK-00820)

TargetMol

Amphiregulin Protein, Human, Recombinant (hFc)

General Information

Synonyms:	SDGF;AR;MGC13647;AREGB;CRDGF;Amphiregulin;AREG
Protein Construction:	Ser101-Lys187
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P15514
Molecular Weight:	37.3 kDa (predicted). Due to glycosylation, the protein migrates to 45-50 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Human AREG, hFc Tag at 0.5μg/ml (100μl/Well) on the plate. Dose response curve for Biotinylated Anti-AREG Antibody, hFc Tag with the EC50 of 27.2ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Amphiregulin (AREG) is a member of the epidermal growth factor (EGF) family and is expressed in a plethora of cancers. Tumour growth and metastasis were decreased by AREG silencing in an orthotopic model of pancreatic cancer. AREG may play a critical role in cell migration, invasion, and EMT by activating the EGFR/ERK/NF-κB signalling pathway in pancreatic cancer cells.

Reference

Wang L, et al. Hypermethylation in Calca Promoter Inhibited ASC Osteogenic Differentiation in Rats with Type 2 Diabetic Mellitus. Stem Cells Int. 2020 Mar 4;2020:5245294. doi: 10.1155/2020/5245294. PMID: 32190058; PMCID: PMC7073499.

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